

REMARKS

Applicants, through their attorney, gratefully acknowledge the courtesy of a personal interview that was extended by Primary Examiner Khanh Dang.

During the course of the aforementioned interview, it was specifically emphasized that the applicants' choice of fiberglass as the filter/baffle media was arrived at only after extensive trial and error testing, and while fiberglass is admittedly well known as an acoustical baffle, it was further discovered during the aforementioned testing to possess excellent hydraulic wave dampening characteristics when disposed in a vertical orientation within a gas tank.

It should further be noted that while the specification on page 7, lines 1 through 5, acknowledges that polyurethane safety foam could be a "possible" substitute for the fiberglass filter media, it further specifically states that fiberglass represents the "best mode" of the invention.

The noise Abatement Filter presented in the patent application is not an acoustic device per se.

As is mentioned in the background of the invention, "During stopping and starting of the vehicle, noise is often generated as the fuel shifts forwardly and rearwardly."

The specific noise is a slap or thud heard in the passenger cabin due to liquid motion in the fuel tank, most often when the tank is between 1/2 and 3/4 full. As the vehicle accelerates or decelerates, a wave forms in the fuel tank and, if unimpeded, impacts the end of the tank. The consequent rapid deceleration of the wave causes a mild hydraulic shock which, when applied of the relatively more flexible top and bottom of the tank, results in an audible thud somewhat like striking the head of a drum.

The role of the present invention is not to acoustically damp this noise but rather to reduce or eliminate its cause. To accomplish this, the device must impede the flow of fuel across the tank (due to wave action) without itself generating a reflected wave back in the return direction. In fact, the desired action is not unlike that of a wave on a body of water striking a bed of reeds and vegetation which impedes the wave without reflecting it as opposed to the action of a sea wall which tends to reflect the wave.

Therefor, the selection of the fiberglass media for this job was not based on "acoustic" considerations, but was rather dictated by concerns about fluid flow restriction and resistance to chemical attack from various reformulated fuel blends used in modern automobiles. Compared

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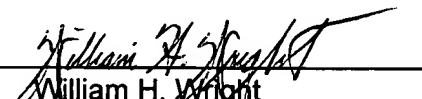
to other materials, this particular fuel-resistant fiberglass media proved particularly adept at flow restriction without return wave generation.

It was further brought to the attention of the Primary Examiner that new independent claim 12 is essentially claim 3 rewritten without the "means" language.

Based on the foregoing facts, it is sincerely believed that the claims as now presented clearly define patentable subject matter over the prior art of record; and, a formal Notice of Allowance based thereon is earnestly solicited.

Respectfully submitted,
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Version with markings to show changes made

Not applicable.